

Amendments to the Claims

Please cancel claims 12, 24, 34, 41, and 55.

Please amend the claims as follows:

1. (Currently amended) A method for providing point-to-multipoint services in a radio communication system, the method comprising:

performing Internet protocol header compression to form header compressed data data;
and

~~transmitting the header compressed data in at least one of a point-to-point service and a point-to-multipoint service depending upon a threshold value, to one or more users of the radio communication system;~~

in a point-to-point service, transmitting the header compressed data to one or more users of the radio communication system;

in a point-to-multipoint service, transmitting the header compressed data over a common transport channel to each of a plurality of the users of the radio communication system;

wherein the Internet protocol header compression is performed in a packet data convergence protocol (PDCP) entity located within a serving radio network controller (SRNC) in case of the point-to-point ~~manner service~~ and within a controlling radio network controller (CRNC) in the case of the point-to-multipoint manner service,

wherein the point-to-multipoint service is a multimedia broadcast/multicast service (MBMS) and one PDCP entity exists in the CRNC for the users of the radio communication system which individually receive the point-to-multipoint service from the CRNC for each MBMS service in case of the point-to-multipoint ~~manner service~~, and

wherein in the case of the point-to-multipoint service, the PDCP entity is located within a layer of a network protocol stack that is located above a layer in which a radio link control (RLC) entity is located, and above a layer in which a medium access control (MAC) entity is located.

~~wherein the PDCP entity is located above a radio link control (RLC) entity or a medium access control (MAC) entity of the CRNC or SRNC.~~

2. (Currently amended) The method of claim 1, wherein the point-to-point ~~manner~~ service is employed if a total number of users within a cell is below the threshold value.

3. (Currently amended) The method of claim 1, wherein the point-to-multipoint ~~manner~~ service is employed if a total number of users within a cell is at or above the threshold value.

4. (Currently amended) The method of claim 1, wherein the Internet protocol header compression is respectively performed for each type of MBMS service to be provided.

5. (Currently amended) The method of claim 1, wherein the point-to-point ~~manner~~ service is transmitting data from a single sending point to a single receiving point.

6. (Currently amended) The method of claim 5, wherein the point-to-point ~~manner~~ service is based upon a total number of users within a cell of the radio communication system.

7. (Canceled)

8. (Previously presented) The method of claim 6, wherein the transmitting by point-to-point manner is via a dedicated channel.

9. (Currently amended) The method of claim 1, wherein the point-to-multipoint ~~manner~~ service is transmitting data from a single sending point to multiple receiving points.

10. (Currently amended) The method of claim 9, wherein the point-to-multipoint ~~manner~~ service is based upon a total number of users within a cell of the radio communication system.

11. (Canceled)

12. (Canceled)

13. (Previously presented) The method of claim 1, wherein the header compression is performed at a central location for each type of MBMS service.

14-15. (Canceled)

16. (Previously presented) The method of claim 1, wherein the MBMS service is a service that is provided to a specified plurality of users.

17. (Canceled)

18. (Currently amended) A method of receiving data of a point-to-multipoint service in a radio communication system, the method comprising:

~~receiving header compressed data in at least one of a point-to-point manner and a point-to-multipoint manner depending upon a threshold value; and~~

in a point-to-point service, receiving header compressed data from a radio communication system;

in a point-to-multipoint service, receiving the header compressed data over a common transport channel from the radio communication system;

decompressing the received header compressed data to allow a user to access the point-to-multipoint service,

wherein the header compressed data is formed in a packet data convergence protocol (PDCP) entity located within a serving radio network controller (SRNC) in case of the point-to-point ~~manner~~ service and within a controlling radio network controller (CRNC) in case of the point-to-multipoint ~~manner~~ service,

wherein the point-to-multipoint service is a multimedia broadcast/multicast service (MBMS) and one PDCP entity exists in the CRNC for the users of the radio communication system which individually receive the point-to-multipoint service from the CRNC for each MBMS service in the case of the point-to-multipoint ~~manner~~ service, and

wherein in the case of the point-to-multipoint service, the PDCP entity is located within a layer of a network protocol stack that is located above a layer in which a radio link control

(RLC) entity is located, and above a layer in which a medium access control (MAC) entity is located.

~~wherein the PDCP entity is located above a radio link control (RLC) entity or a medium access control (MAC) entity of the CRNC or SRNC.~~

19. (Currently amended) The method of claim 18, wherein the point-to-point ~~manner~~ service is receiving data by a single receiving point from a single sending point.

20. (Currently amended) The method of claim 19, wherein the point-to-point ~~manner~~ service is based upon a total number of users within a cell of the radio communication system.

21. (Currently amended) The method of claim 19, wherein the receiving by point-to-point ~~manner~~ service is via a dedicated channel.

22. (Currently amended) The method of claim 18, wherein the point-to-multipoint ~~manner~~ service is receiving data by multiple receiving points from a single sending point.

23. (Currently amended) The method of claim 22, wherein the point-to-multipoint ~~manner~~ service is based upon a total number of users within a cell of the radio communication system.

24. (Canceled)

25. (Previously presented) The method of claim 18, wherein the MBMS service is a service that is received by a specified plurality of users.

26-27. (Canceled)

28. (Currently amended) In a radio communication system for providing and receiving data of a point-to-multipoint service, a radio network controller comprising:

a header compressing portion that performs Internet protocol header compression to form header compressed data; and

~~a transmitting portion, operatively connected with the header compressing portion, that transmits the header compressed data in at least one of a point-to-point manner and a point-to-multipoint manner depending upon a threshold value, to one or more users of the radio communication system;~~

a transmitter portion configured to:

in a point-to-point service, transmit the header compressed data to one or more users of the radio communication system; and

in a point-to-multipoint service, transmit the header compressed data over a common transport channel to each of a plurality of the users of the radio communication system;

wherein the point-to-multipoint service is a multimedia broadcast/multicast service (MBMS) and one PDCP entity exists in the CRNC for the users of the radio communication system which individually receive the point-to-multipoint service from the CRNC for each MBMS service in the case of the point-to-multipoint ~~manner~~ service, and

wherein in the case of the point-to-multipoint service, the PDCP entity is located within a layer of a network protocol stack that is located above a layer in which a radio link control (RLC) entity is located, and above a layer in which a medium access control (MAC) entity is located.

~~wherein the PDCP entity is located above a radio link control (RLC) entity or a medium access control (MAC) entity of the CRNC or SRNC.~~

29. (Canceled)

30. (Previously presented) The radio network controller of claim 28, wherein the PDCP entity respectively performs header compression for each type of MBMS service to be provided.

31. (Canceled)

32. (Original) The radio network controller of claim 31, wherein the SRNC transmits via a dedicated transport channel.

33. (Canceled)

34. (Canceled)

35. (Currently amended) In a radio communication system for providing and receiving data of a point-to-multipoint service, a user equipment comprising:

~~a receiving portion, that receives in at least one of a point-to-point manner and a point-to-multipoint manner, Internet protocol header compressed data; and~~

a receiving portion configured to:

in a point-to-point service, receive header compressed data from a radio communication system;

in a point-to-multipoint service, receive the header compressed data over a common transport channel from the radio communication system;

a header decompressing portion operatively connected with the receiving portion, the header decompressing portion ~~decompressing the header compressed data to access the point-to-multipoint service;~~ decompressing the received header compressed data to allow a user to access the point-to-multipoint service,

wherein the header compressed data is formed in a packet data convergence protocol (PDCP) entity located within a serving radio network controller (SRNC) in case of the point-to-point ~~manner~~ service and within a controlling radio network controller (CRNC) in case of the point-to-multipoint ~~manner~~ service,

wherein the point-to-multipoint service is a multimedia broadcast/multicast service (MBMS) and one PDCP entity exists in the CRNC for the users of the radio communication system which individually receive the point-to-multipoint service from the CRNC ~~for each MBMS service~~ in the case of the point-to-multipoint ~~manner~~ service, and

wherein in the case of the point-to-multipoint service, the PDCP entity is located within a layer of a network protocol stack that is located above a layer in which a radio link control (RLC) entity is located, and above a layer in which a medium access control (MAC) entity is located.

~~wherein the PDCP entity is located above a radio link control (RLC) entity or a medium access control (MAC) entity of the CRNC or SRNC;~~

36-38. (Canceled)

39. (Previously presented) The user equipment of claim 35, wherein the receiving portion receives via a dedicated transport channel.

40. (Canceled)

41. (Canceled)

42. (Currently amended) A method for providing point-to-multipoint services in a radio communication system, the method comprising:

performing Internet protocol header compression to form header compressed data; and
~~transmitting the header compressed data in at least one of a point-to-point manner and a point-to-multipoint manner according to a type of point-to-multipoint service to one or more users in the radio communication system;~~

in a point-to-point service, transmitting the header compressed data to one or more users of the radio communication system;

in a point-to-multipoint service, transmitting the header compressed data over a common transport channel to each of a plurality of the users of the radio communication system;

wherein the Internet protocol header compression is performed in a packet data convergence protocol (PDCP) entity located within a serving radio network controller (SRNC) in case of the point-to-point ~~manner~~ service and within a controlling radio network controller (CRNC) in the case of the point-to-multipoint ~~manner~~ service.

wherein the point-to-multipoint service is a multimedia broadcast/multicast service (MBMS) and one PDCP entity exists in the CRNC for the users of the radio communication system which individually receive the point-to-multipoint service from the CRNC for each MBMS service in case of the point-to-multipoint ~~manner~~ service, and

wherein in the case of the point-to-multipoint service, the PDCP entity is located within a layer of a network protocol stack that is located above a layer in which a radio link control (RLC) entity is located, and above a layer in which a medium access control (MAC) entity is located.

~~wherein the PDCP entity is located above a radio link control (RLC) entity or a medium access control (MAC) entity of the CRNC or SRNC.~~

43-50. (Canceled)

51. (Currently amended) A method of providing Internet protocol header information to a plurality of terminals in a wireless communication system, the method comprising:

performing header compression of Internet protocol header information to form compressed header data; and

~~transmitting the compressed header data to at least one terminal of the communication system in at least one of a point-to-point manner and a point-to-multipoint manner depending upon a threshold value;~~

in a point-to-point service, transmitting the header compressed data to one or more users of the wireless communication system;

in a point-to-multipoint service, transmitting the header compressed data over a common transport channel to each of a plurality of the users of the wireless communication system;

wherein the Internet protocol header compression is performed in a packet data convergence protocol (PDCP) entity located within a serving radio network controller (SRNC) in case of the point-to-point ~~manner~~ service and within a controlling radio network controller (CRNC) in case of the point-to-multipoint ~~manner~~ service,

wherein the point-to-multipoint service is a multimedia broadcast/multicast service (MBMS) and one PDCP entity exists in the CRNC for the users of the wireless communication

system which individually receive the point-to-multipoint service from the CRNC for each MBMS service in case of the point-to-multipoint manner service, and

wherein in the case of the point-to-multipoint service, the PDCP entity is located within a layer of a network protocol stack that is located above a layer in which a radio link control (RLC) entity is located, and above a layer in which a medium access control (MAC) entity is located.

~~wherein the PDCP entity is located above a radio link control (RLC) entity or a medium access control (MAC) entity of the CRNC or SRNC.~~

52. (Previously presented) The method of claim 51, wherein the header compression is performed once for the data transmitted to the plurality of terminals when the data is transmitted in the point-to-multipoint manner.

53. (Previously presented) The method of claim 51, wherein the compressed header data is provided to the plurality of terminals when the data is transmitted in the point-to-multipoint manner.

54. (Previously presented) The method of claim 51, wherein the threshold value is associated with a number of terminals.

55. (Canceled)

56. (Previously presented) The method of claim 51, wherein at least part of the Internet protocol header information is not compressed.

57-70. (Canceled)

71. (Currently amended) A wireless communication system for providing Internet protocol header information to a plurality of terminals, the wireless communication system comprising:

a header compression module adapted to receive Internet protocol header information from an internet protocol module and compress the Internet internet protocol header information to form compressed header data;

~~a transmitting module adapted to transmit the compressed header data to at least one user of the communication system in at least one of a point-to-point manner and a point-to-multipoint manner depending upon a threshold value; and~~

a transmitter module configured to:

in a point-to-point service, transmit the header compressed data to one or more users of the wireless communication system; and

in a point-to-multipoint service, transmit the header compressed data over a common transport channel to each of a plurality of the users of the wireless communication system;

~~a receiving module adapted to receive and decompress the compressed header data, wherein the header compression of Internet protocol header information is performed in a packet data convergence protocol (PDCP) entity located within a serving radio network controller (SRNC) in case of the point-to-point manner and within a controlling radio network controller (CRNC) in case of the point-to-multipoint manner;~~

a receiving module configured to:

in a point-to-point service, receive header compressed data from the wireless communication system;

in a point-to-multipoint service, receive the header compressed data over a common transport channel from the wireless communication system;

~~wherein a multimedia broadcast/multicast service (MBMS) is provided to the plurality of terminals and one PDCP entity exists in the CRNC for the users of the wireless communication system which individually receive the point-to-multipoint service from the CRNC for each MBMS service in case of the point-to-multipoint manner service, and~~

wherein in the case of the point-to-multipoint service, the PDCP entity is located within a layer of a network protocol stack that is located above a layer in which a radio link control (RLC) entity is located, and above a layer in which a medium access control (MAC) entity is located.

~~wherein the PDCP entity is located above a radio link control (RLC) entity or a medium access control (MAC) entity of the CRNC or SRNC.~~

72. (Previously presented) The wireless communication system of claim 71, wherein the compressed header data is provided to the plurality of terminals when the data is transmitted in a point-to-multipoint manner.

73. (Canceled)

74. (Previously presented) The wireless communication system of claim 71, wherein the compressed header data is transmitted in the point-to-point manner if the number of terminals is below the threshold value.

75. (Previously presented) The wireless communication system of claim 71, wherein the compressed header data is transmitted in the point-to-multipoint manner if the number of terminals is at or above the threshold value.

76-80. (Canceled)